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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,276	01/16/2004	Masaru Takahashi	Q79469	5146
23373	7590	12/23/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			HSIEH, SHIH WEN	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,276

Applicant(s)

TAKAHASHI ET AL.

Examiner

Shih-wen Hsieh

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004 (claims).
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-7 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 6-28-04; 8-25-05.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Edamura (US Pat. No. 6,631,973 B1).

In regard to:

Claim 1:

Edamura teaches in his fig. 22:

A liquid ejecting apparatus comprising:

a liquid ejecting head (H1001, fig. 6), having a nozzle (H1100T, fig. 8) from which a liquid is ejected;

a capping unit (M5001, fig. 11), sealing the liquid ejecting head, refer to step S11;

a tube pump (M5100, fig. 11), applying a negative pressure to the capping unit by rotating operation to suck a fluid, refer to col. 24, lines 40-55; and

a controller (E1001, fig. 16A), varying a rotation speed of the tube pump, refer to step S15 and col. 25, lines 3-8,

wherein the controller rotates the tube pump at a first rotation speed for a first predetermined time, refer to step S13 and col. 24, lines 47-49 and 56-58; and

wherein the controller rotates the tube pump at a second rotation speed lower than the first rotation speed for a second predetermined time after rotating the tube pump at the first rotation speed for the first predetermined time, refer to step S15 for a second speed and col. 25, lines 3-8. Please note: in col. 25, lines 3-8, the second speed is at a predetermined rotation speed (lines 4-6). Therefore, a speed, which is lower than the first speed is also covered by the predetermined speed.

Claim 2:

Edamura further teaches:

wherein the first predetermined time is a time from a start of the rotating operation of the tube pump to when a suction speed at which the tube pump sucks the fluid reaches a predetermined value, refer to col. 24, lines 40-58. In the quoted lines,

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due to a negative pressure target value is arrived, therefore corresponding to this negative pressure value, a predetermined amount of ink is being sucked out.

Claim 3:

The liquid ejecting apparatus as set forth in claim 1, wherein a plurality of rotation speeds of the tube pump capable of increasing a suction speed of the fluid to a predetermined value are set to the controller;

wherein the controller rotates the tube pump at one rotation speed of the set rotation speeds of the tube pump for a predetermined time; and

wherein the controller rotates the tube pump at another rotation speed of the set rotation speeds of the tube pump lower than the one rotation speed for a predetermined time after rotating the tube pump at the one rotation speed.

Rejection:

This claim is rejected on the basis as set forth for claims 1 and 2 discussed above.

In this claim, the plurality of rotation speeds are covered by steps S 13 and S15 respectively. The time is the numbers of pulses (since the motor is a pulse motor). And the plurality of speeds are all predetermined speed. Therefore, second speed is lower than the first speed is covered by Edamura's invention.

Claim 4:

A method for controlling a liquid ejecting apparatus, comprising the steps of:
providing a liquid ejecting head which has a nozzle from which a liquid is ejected';

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providing a capping unit which seals the liquid ejecting head;

providing a tube pump which applies a negative pressure to the capping unit by rotating operation to suck a fluid;

setting a plurality of rotation speeds of the tube pump capable of increasing a suction speed of a fluid to a predetermined value;

rotating the tube pump at one rotation speed of the rotation speeds of the tube pump for a predetermined time in a high speed rotation stage; and

rotating the tube pump at another rotation speed of the rotation speeds lower than the one rotation speed for a predetermined time in a low speed rotation stage after the step of rotating the tube pump in the high speed rotation stage.

Rejection:

The steps in this method claim are deemed to be made inherent by the function of the structure in the combination discussed above for claim 1.

Claim 5:

Edamura further teaches:

wherein the rotating of the tube pump in the low speed rotation stage is performed when the suction speed of the fluid is reached the predetermined value in the high speed rotation stage, refer to Steps S13 and S15 and discussions to claim 1 above.

Claim 6:

Edamura further teaches:

wherein the rotating of the tube pump in the low speed rotation stage is performed when a time predicted that the suction speed of the fluid is reached the predetermined value is elapsed in the high speed rotation stage, refer to Steps S13 and S15. In this claim, recitation of "when a time predicted that the suction speed of the fluid is reached the predetermined value is elapsed in the high speed rotation stage" is the time corresponding to 400 pulses. When the 400 pulses is over (elapsed), the negative pressure reaches a predetermined value, then a second rotation (S15 at a second predetermined speed) is started for a number of pulses.

Claim 7:

Edamura further teaches:

wherein the rotating of the tube pump in the high speed rotation stage and the rotating of the tube pump in the low speed rotation stage are successively performed, refer to step S18.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-wen Hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 7:30AM -5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.


Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

SHIH-WEN HSIEH
PRIMARY EXAMINER


Shih-wen Hsieh
Primary Examiner
Art Unit 2861

SWH



Dec. 21, 2005